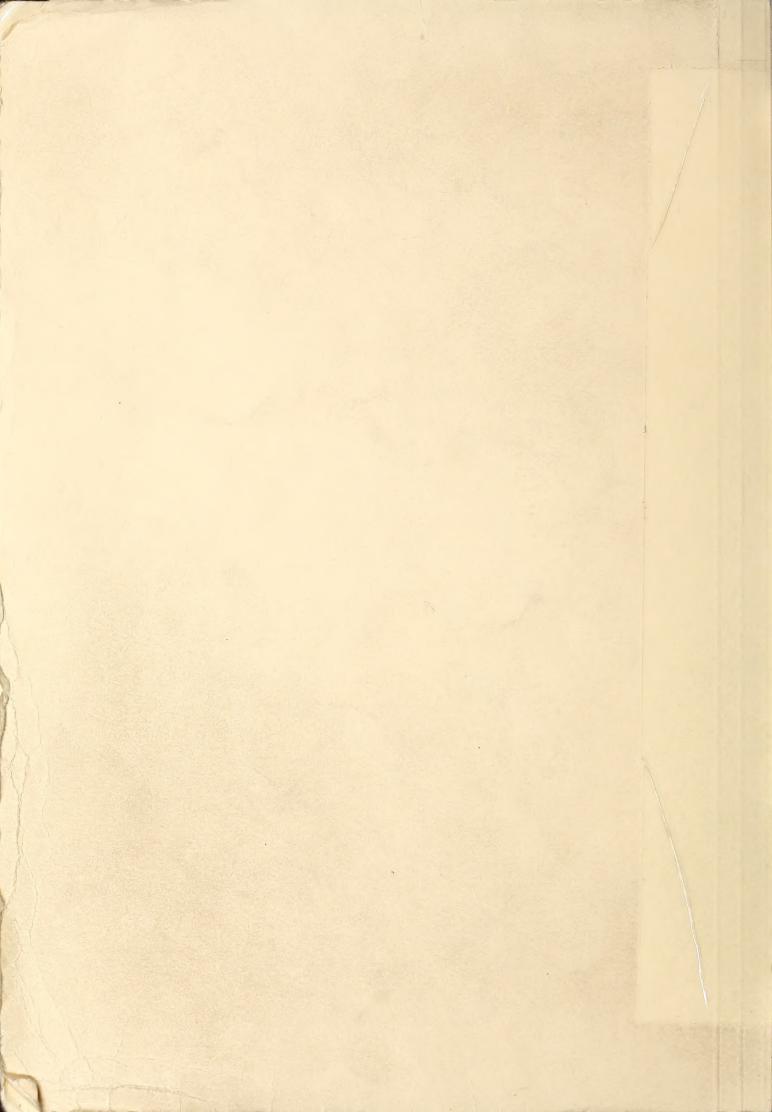
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Complimentary

NEW CREATIONS

BEAR

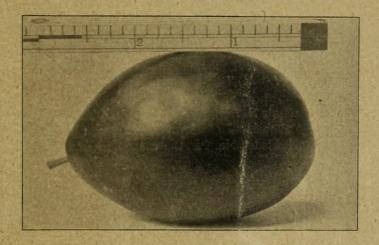
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IN

Department of Agricultura

# Fruits and Flowers,

JUNE, 1894.



"The inventor and author find protection in the arm of the law, but not so the one who, through skill and patience, turns the most insignificant flower into a thing of beauty, or the vine that fails to hold its few offerings until the autumn sun does its work, into one that holds out its luscious clusters to tempt the very gods."—Boston Globe.

PRICE: 25 CENTS.

("New Creations" for 1893 same price.)

# BURBANK'S EXPERIMENT GROUNDS,

Santa Rosa, California, U.S. A.

Office and Residence:

204 Santa Rosa Avenue.

Cable Address:

"Burbank, Santa Rosa, Cal."

<sup>&</sup>quot;There seems to be no limit to the changes which organisms undergo under changing conditions of life."

DARWIN.

ITH most sincere thanks to all those who have so kindly and so liberally purchased the new plants mentioned in my last circular, thus lending the most solid encouragement and placing me in a condition to cheerfully continue in the same work, I again come before you with more new fruits and flowers, and hope to receive such further encouragement as these new productions deserve.

The sympathy of the reader is desired, requiring as it does the nicest perception and care to give the most accurate description and impression possible in the small space of this catalogue, which has been made up at odd moments when business was calling loudly in many directions.

In reply to very numerous inquiries, and as a matter of general information, the names of most of the purchasers of the new fruits and flowers mentioned in the list of June, 1893, are here given:

ANDREW J. COE, Meriden, Conn., Mammoth Japan Chestnut, "S.—8,940." JOHN LEWIS CHILDS, Floral Park, N. Y., Quince, "California;" Plums, "Delaware," "Shipper" and "Juicy;" Berries, "Golden Mayberry," "Primus," "V. C.—16,407;" Trifoliate Dewberries, "No. 1" and "No. 2," "Eureka" and "Sugar Hybrid;" Lily, Dwarf Pardalium "P.—72,721" and "Cross-bred Tomatoes,"

STARK Bros., Wholesale Nurseries, Louisiana, Mo., Quince, "Van Deman;" Prune, "A. P.—318;" Plums, "Golden," and half interest in "Doris."

A. BLANC & Co., Philadelphia, Pa., the whole stock of Gladiolus "California strain."

SUNSET SEED AND PLANT Co., San Francisco, Cal., Seedling Roses, "M.—11,120" and "M.—19,928."

Other purchasers will be announced in due season. The purchasers of all the above have complete control except of the "Doris" Plum. It will be useless to write to me for any of them for any purpose whatever; they will be introduced by the purchasers as soon as possible.

"The novelties of 1894 are comparatively few, that is, novelties announced for the first time. Novelties of surpassing merit are always rare, and there is always an eager market to secure them by the more substantial firms of the country. It is for this reason that less reputable firms are ever ready to foist their counterfeits upon credulous people."—Rural New Yorker.

THE PRICES of all stock mentioned in this list will remain the same until the next crop of fruit or flowers of each variety appears. After still further test of these, under more favorable circumstances, the right is reserved to increase the prices at once of such as may be considered of greater value.

TERMS: Cash, unless by special agreement.

Address all orders to

### LUTHER BURBANK, Santa Rosa,

Sonoma County, Cal.,

Office and Residence, 204 Santa Rosa Ave.,

Cable Address: "Burbank, Santa Rosa, Cal."

U. S. A.

# INTRODUCTION.

WELVE MONTHS HAVE PASSED since the first number of "NEW CREATIONS IN FRUITS AND FLOWERS" was sent out on its mission among dealers in trees and plants, great care being taken to confine it to the trade only; but before the few hundred first published were all delivered, orders came

pouring in with each mail, like the falling of autumn leaves, for more; and again more had to be printed, and to this day the requests for "New Creations" are increasing rapidly, instead of diminishing, as it had been

hoped they would.

Probably no horticultural publication ever created more profound surprise or received a more hearty welcome. Almost every mail brings requests for them from colleges, experiment stations, libraries, students and scientific societies in Europe and America, and it has been translated into other languages for foreign lands, even where it would seem that scientific Horticulture was hardly recognized; some asking for one, others for two or three, or a dozen or two or more. All these requests have been cheerfully responded to, but from this time on we shall be obliged to make a charge. We cannot attend to the ever increasing avalanche of letters which they occasion, a large portion of which are from amateurs, with long lists of questions, which would require years, perhaps a lifetime, to answer.

This ever increasing number of letters, which we have always carefully replied to (some twelve hundred to two thousand per annum), must be stopped, in part at least, else there will soon be no one here to answer them. We love to produce new fruits and flowers, and our heart is made glad beyond expression to know that our work is appreciated far and wide; but most of the *questions* which amateurs ask could better be answered by some horticultural paper, which would welcome them, or by the experiment stations, or by some-

one who has more leisure at his command.

Five years ago we sold out a nursery business which had been built up from nothing, and which was paying us fully ten thousand dollars a year, that we might give all our time and thought to the work of producing new fruits and flowers.

Do not think because they are raised in sunny California that they are less likely to prove generally hardy. Are those already before the public any less hardy or any less valuable than most of the Russian fruits which have been so extensively advertised for years? Are not the various Plums, Walnuts, Chestnuts, etc., which have been distributed from our establishment, proving to be *hardier* even than most of the Russian fruits, and more valuable in all

other respects? But the best ones are yet to come.

About twelve years ago, when, having by thorough test found them good, we first commenced to introduce these fruits and nuts, sending circulars to most of the nurserymen in the United States, it was like trying to swim up stream in a rapidly flowing river, as very few had faith enough in them to invest in a tree; but those who were enterprising enough to do so, now find themselves fully prepared to supply the great and ever increasing demand which has followed, and are reaping rich rewards for the small investment of enterprise and coin which they then made.

What better gift has American Horticulture lately received than these fruits and nuts, and the greatly improved seedlings and crosses from them? And yet we have the fullest sympathy with all nurserymen who desire to introduce only those trees, fruits and flowers which have been widely tested, and which will prove better than any before known; delicious, productive, handsome, hardy and reliable in every respect. We would very much prefer to have all our new fruits and flowers fully tested everywhere and by everybody; but those who know the facts are too well aware that it would be a perilous risk or utter ruin to the originator, as a single bud or seed in the wrong hands may place an unscrupulous person on an equal footing with the originator, who may have spent worlds of patient thought and toil, during the few short years of the best of his life, in producing the beautiful creation. Having no Government aid or even protection, or college endowment to back us and to pay our bills, we must receive early returns, in part at least, for our tremendous expenses. Most of the horticultural world now knows that we would not send out a plant which was thought to be unworthy; else would the keenest and most level-headed business men—men who have built up mammoth horticultural establishments which are a wonder far and near—pay thousands of dollars for a single plant or tree which they had never seen, to one living in a far-off State or nation whom they had never met? as they have done in the past and will continue to do in the future, and with ever-increasing confidence.

DO NOT IMAGINE that because the purchaser of the control of any of our new fruits and flowers happens to be so enthusiastic as to overpraise them, painting their virtues in far brighter colors than we have done, that the originator should be blamed. Great loss, vexation and disappointment come from *indiscriminate* and *unwarranted* praise. Indiscriminate commendation has a tendency to discourage all the honest efforts of originators who might, perhaps, otherwise receive some reasonable compensation for their labors. Purchasers will discover their real value sooner or later; and those who advertise discarded plants of ten or twenty years ago, find their business and reputation waning, as, in these days, people are becoming more discriminating, finding that everything labeled "good" or "bad" is not necessarily so because it is so labeled.

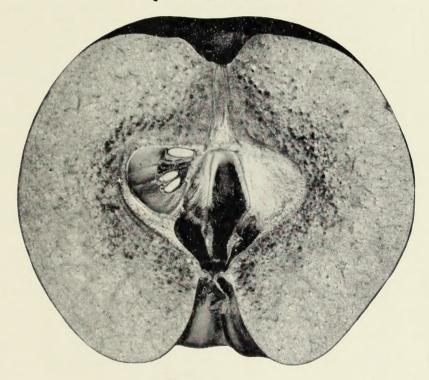
DO NOT EXPECT the *best* fruits of our labors to be put on the market *first*. Producing new varieties of superlative excellence is not a lottery, but a matter of many years of sincere study, and a more or less thorough, practical knowledge of the sciences as we find them to-day, which will require almost a lifetime to secure. Only the rudiments can be obtained from books; each one must work out facts for himself as he finds them indicated here and there. Imperturbable Mother Nature requires us to use our own mental search-light to guide the way, rewarding all earnest students and faithful workers without partiality to any.

In the pages following I give extracts from horticultural journals, letters, etc., so that all may know what others say in regard to my work and its results, both horticulturally and from an educational standpoint. No one will question the sincerity or eminent ability to judge of those whose words are quoted here and there along these pages.

<sup>&</sup>quot;'New Creations in Fruits and Flowers' is a hybrid between a history of some of the most wonderful creations in fruits and flowers, delightfully told, and a catalogue beautifully gotten up...... All the descriptions have a sort of Arabian Nights' fascination about them, but they are fully endorsed by some of the most notable horticulturists in our country."

—Florists' Exchange.

# Quinces.



New Quince.

"No. 80."

UINCE No. 80 is a seedling of Rea's Mammoth. I give a very accurate description of the *fruit* from the *Rural New Yorker*. The *tree* is about the same as Rea's Mammoth in growth and productiveness; the mild-

ness and peculiar color of the fruit are remarkable.

"No. 80 is of a deep orange color in every part. Most quinces show some green. This is a uniform pure orange yellow. It is nearly round, measuring in one circumference 13½ inches around body, by 13¼ the other, i. e., around calyx and stem. The calyx basin is deep,—over an inch,—and the cavity wide; the flesh somewhat plaited or corrugated about the top, which is about two inches wide. The stem cavity is one-half inch deep and one-half inch wide, making a regular cavity; the surface is undulating, though gently so. A beautiful fruit, flesh lemon yellow, not quite so tender as California, and not quite so juicy; it is a better keeper."

Stock on hand: One seven-year-old tree and a few grafts. Price, \$600.

"Of great importance to nurserymen is the work of Luther Burbank of California. He is engaged exclusively in the production of fruits and flowers which are new in the highest sense of the word. It is wholly a private enterprise and the most extensive of its kind. The results of his work are of the greatest interest to nurserymen whose business it

is to propagate and disseminate, in large quantities, the new as well as the old varieties. Mr. Burbank has succeeded in improving the old varieties to almost as great an extent as in introducing new kinds. His work will continue to be watched with interest."—The National Nurseryman.

- "Desultory and unscientific experiment will not answer. The subject must be pursued in a thoroughly scientific manner. The work is tedious and most uncertain at the beginning. All the processes, from the pollenizing of the flowers to the gathering of the seed, require the utmost care. Many of the fertilized flowers will fail to set seed, and then the fruits which contain the coveted seeds must be carefully watched throughout the season. It requires another year, sometimes many years, to produce plants from these, and the most careful investigation of their characters must be made. Sometimes the material produced will be too scanty to work with, and again it will be so abundant and will open out into so many directions, that a man with anything else on his hands will despair of exploring them all. No one can have too large a knowledge of horticultural varieties for this work; no one can have too profound a knowledge of plant-growth; no one can have too many appliances at his command to make the work efficient. It certainly is worthy of the highest skill and the closest application..... The extent of his work only shows how much must be done before one good variety can be brought forth; and how ardent must be the zeal which sustains any individual through long years of labor, expense and uncertainty. It can hardly be expected that many other persons will enter the field with so much enthusiasm, determination and ability."—Garden and Forest.
- "Your catalogue has great interest in its botanical and biological aspects, as well as pomologically. I showed it to Prof. Brewer of New Haven, who made the first botanical survey of California, and he said he would ask you for one as a matter of scientific information."

  A. J. Coe, Connecticut.
- "The quinces are received in good order. I am simply amazed at your work. When I consider how hard I have worked and how little I have done, I cannot begin to understand how it has been possible for you to accomplish so much. For a time I could not but question whether your climate did not deceive you. There are too few to appreciate such work as yours."

  E. S. CARMAN, Rural Experiment Grounds.
- "You have certainly been very successful in your work of producing new things of promise. I hope some of our Government Experiment Stations may be as successful in what they undertake."

  G. W. McCluer,

  Agricultural Experiment Station, University of Illinois.
- "While I have long been impressed with your work, I am now overwhelmed with the vast amount of good you have been able to accomplish. I respect your work above all that has ever been done for horticulture." WM. B. ALWOOD,

Horticulturist, Entomologist and Mycologist, Virginia Agricultural and Mechanical College, Agricultural Experiment Station.

- "'Catalogue of New Creations.' A remarkably unique catalogue issued by Luther Burbank, who seems to have devoted his life chiefly to the improvement of fruits and flowers. He has been eminently successful in this line, and we have here an illustrated catalogue of fifty-two pages, devoted wholly to the description of the more valuable of his productions. He does not sell them all singly, but offers the whole stock of each kind for sale at prices suited to the character of the new introduction. It is a particularly useful field to occupy, and one in which we believe Mr. Burbank stands alone."—Meehans' Monthly.
- "A copy of your new catalogue came sometime ago, and it is of unusual interest. You occupy a position in the experimental world that is certainly quite unparalleled."

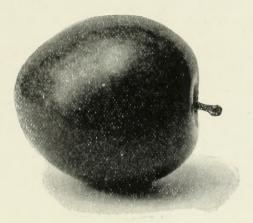
H. E. VAN DEMAN,
Chief of Division of Pomology,
U. S. Dept. of Agriculture, Washington, D. C.

- "I look upon your results as the most palpable practical outcome of the Darwinian revolution in thought."

  DR. ROBT. H. LAMBORN, New York.
- "Mr. Burbank is doing a stupendous, unequaled work. That any *one* man can do the work—nay, the tenth of it—that he seems to have done, passeth the understanding."—Rural New Yorker.
- "Chestnuts received; they are certainly as sweet as the average American Sweet Chestnut."

  A. J. Coe, Conn.

# Plums and Prunes.



CROSS-BRED PLUM "WICKSON." (Life size.)

### Cross-bred Japan Plum.

"Wickson." (See "Perfection" in New Creations of 1893.)

YEAR ago I was convinced that this was perhaps the best of all the Japan Plums, and have yet no reason to change that opinion, only more than ever to admire the clean, sturdy, vigorous, upright growth of the trees, the pleasing light gray bark, the habit of ripening its wood hard to the very tip, its productiveness and the rare beauty and keeping qualities of its fruit, both size and quality of which have much improved since removing from the original hedge-row. The form has changed to be more generally obconical. It will probably prove hardy in central New York, and perhaps much further north.

I have been allowed to permanently name this fruit after my friend, Prof. Edward J. Wickson of the California State University, and author of "California Fruits and How to Grow Them."

There is wood enough now for twenty thousand grafts or half a million buds; and if not sold before September 1st, shall introduce it myself to the general trade. Price, \$2,500.

"The new Japan Seedling Plum you kindly sent me was received in perfect condition. It was tasted by several of us, and we all pronounced it very delicious. I hope it may bring you an abundant reward, and prove a satisfaction to all who plant it."

M. CRAWFORD, Ohio.

"We thank you for your favor of the 18th. The box of Plums also came in same mail. They are certainly very fine. Should it prove hardy as Burbank, then surely you have a bonanza in Wickson."

STARK BROS., Louisiana, Mo.

"Thanks for your letter and specimens. The Plum is grand."

(Prof.) E. J. Wickson, University of California, Agricultural Experiment Station. "The California papers are describing a new Plum which Luther Burbank has temporarily named 'Perfection' (now permanently named 'Wickson'), and which he produced by crossing the Japanese Satsuma upon the Kelsey. The fruit is almost the shape of an inverted pear, that is, with the stem attached to what corresponds to the blossom end of a pear. The amber-colored flesh is juicy and translucent, with a striking and agreeable flavor. The pit is small and shapely; the color deepens from a deep uniform cherry-red to a rich claret as it ripens, and when fully matured it is still in firm shipping condition."—

Garden and Forest.

"Luther Burbank of Santa Rosa sends us a sample of what he considers the best new variety he has thus far obtained by crossing Plum varieties brought from Japan. The variety he has temporarily named Perfection, and it is a cross of the Satsuma upon the Kelsey. We commented favorably upon it last year, and the present sample strengthens the conviction that it will be a popular variety because of its strikingly handsome appearance and high quality. Its form suggests the Kelsey, but it is more symmetrical—in fact it is almost pyriform, inverted of course, for the stem is attached where the eye of the pear is found. Carrying its semblance to a pear shape further, we can say that it is almost identical with an inverted Doyenne du Comice. The color develops from a deep cherry-red down to a rich claret as the fruit becomes ripe. The coloring is uniform, and the fruit, from its firm shipping condition to its full ripeness, is even and handsome. In this respect it will be a great improvement upon the Kelsey. The flesh is of amber tint, very juicy and translucent; the pit is small and shapely; the flavor is striking and agreeable. From all the points of the variety, we anticipate its popularity as a dessert fruit for sale to distant purchasers, as it seems to have notable keeping qualities."—Pacific Rural Press.



Cross-bred Japan Plum.

"Prolific." (J.-3,972, in New Creations, 1893.)

The most productive of large, handsome fruit of any of the Japan plums, and the quality is not surpassed by any. In bloom and fruit all the branches are hidden from view, and yet, owing to the unusual vigor of the tree, it all

comes to perfection.

The only objection to it was a few thorns, but these have almost wholly disappeared whenever it has been grafted. Its productiveness and the remarkable size and beauty of the fruit will make it exceedingly popular. From its appearance I judge it will be hardy as far north as New York and perhaps in central New England.

Stock: One large tree, one hundred large yearlings, and many strong

top grafts. Price, \$500.

- "There are still better things in store for us in the progeny of these Japan Plums crossed with our native species and also with the European species. This promising work has already progressed far enough to show results, for there are a few new seedlings of this character now under trial. Foremost in this work is Luther Burbank of California. The catalogue which he has issued under the title New Creations, is of unusual interest, as it contains descriptions of many things of this character. It should be read by every thoughtful horticulturist."—Prof. H. E. Van Deman, in *Green's Fruit Grower*.
- "S. D. Willard's talk on Plums provoked a long discussion in which there was a consensus of opinion that the Japan Plums are destined to work a revolution in the culture of this fruit. Mr. Willard said that Luther Burbank's experiments in crossing the Japan Plum with the native varieties promise to produce results far beyond anything yet obtained. Mr. Hale said that no fruit will give more satisfactory results for marketing purposes than Japan Plums. They are quick growers, quick and prolific bearers, are hardy, and the fruit is showy and of excellent quality."—National Nurseryman.
- "J. H. Hale of Connecticut said, that for profit as a market fruit the outlook for the Japan Plums was wonderful. He believes that the planting of these plums, Abundance, Burbank and Satsuma, is the greatest of all horticultural openings of the present day. They are not tender; they are perfectly hardy; they are excellent shippers and long keepers. They are possessed of great beauty; their quality is fairly good except Ogon, which is a cross between a Kieffer pear and a cucumber in quality. The Satsuma is very good indeed. Plant these plums and reap great rewards. They will bear three years after planting and enormous crops.'
  - "I consider the Burbank seedling the leading plum of the coast." G. W. THISSELL, SR., Yolo County, Cal.
  - "The samples of plums are fine, especially A. P.—318. Quality superb." STARK BROS., Mo.
- "So far the newly introduced Japanese varieties show themselves very hardy, and productive beyond our powers to describe; while as regards productiveness, Burbank Japan excells them all. I have grown of this variety one hundred fruits to the square foot, while some branches producing this fruit, were making from two to three feet of new wood." S. D. WILLARD, New York.
  - "These Japan Plums are certainly the coming fruit." (PROF.) L. H. BAILEY, at Western New York Horticultural Meeting.

### "Giant" Prune.

(A. P.-90 of 1893.)

Nothing need be said in regard to the size of this Prune—that is made sufficiently plain by the photographs; but besides its mammoth proportions it has a honey yellow flesh of remarkable sweetness, and so firm that it can be shipped six thousand miles in good condition. This is a case where great size and other rare qualities are combined in one fruit.

The tree is a strong, handsome grower, and the fruit is produced in the

utmost profusion and of uniform size.

Good judges believe it to be the best shipping Prune in existence.

Stock: Several thousand yearling trees which are growing east of the Mississippi, so that any Eastern purchaser will have a good start this season. Price for all stock and control, \$2,500.

If this is not sold before September 1st, I shall introduce it to the general

trade myself.

"Yours of recent date at hand, also the fruit, which came through in good condition. I showed it to my friends the Maxwell Brothers, and we tested it together. They united in the expression that A. P.—90 was the finest Plum they had ever tasted. I thank you very much for these samples, which were really very nice." S. D. WILLARD, New York. "We thank you for samples of fruits and photos. We cannot begin to express our appreciation and admiration. We only wish those fine fruits could be at an early date generally distributed and grown for the good of fruit growers and Horticulture in general."

STARK BROS., Louisiana, Mo.

"I was agreeably surprised by your kind favor of the 26th inst. last evening, together with a box of Plums, which arrived in perfect condition, and were shown to a number of fruit growers here, exciting many complimentary remarks and much surprise at the results of your cross-fertilization."

T. T. Lyon,

Pres. of Michigan State Horticultural Society.

"Samples of Plums came duly to hand. Have not sampled the quality, but the appearance is simply grand, particularly 'Golden.' We feel the greatest confidence that the 'Golden' should prove of unequaled value for all the Mississippi region where the domestica species are rarely successful."

Stark Bros., Mo.



"GIANT" PRUNE. (Life size.)

### "Honey Prune."

A seedling of the well-known French Prune which it surpasses considerably in size of fruit, which is a handsome flattened ovoid in form; white, semi-transparent with a heavy white bloom. In honeyed sweetness, combined with a peculiarly attractive fragrance and flavor, it surely excels all other prunes or plums.

Stock: One-third of a small tree. Price, \$300.

"The 'Honey' is an exquisite Prune; seems as though it might have some Jefferson blood, but is of even finer quality. The 'J.' ('Prolific') is also very fine, and seems to be an admirable shipper, being very firm."

STARK BROS., Louisiana, Mo.

"Your kind letter of the 26th came duly to hand, also New Creations which I am pleased to receive. I have frequently heard of the great pains you have taken to introduce and improve our fruit, and I ofttimes think that your labors, as well as others, are not half appreciated by the fruit growers of California. I am interested in your labor, and think I know how to appreciate it. Three years ago the Burbank Seedling came to my notice; I obtained a few grafts and gave it a fair test in this early locality; the result was, it turned out to be very early—ripened the 12th of June. I shipped three hundred and forty crates, the first ever shipped to the Eastern market—Boston and New York. In some instances they brought fabulous prices, and I feel confident there will be fifty per cent more trees sold this season than have ever been sold before. I have furnished thousands of buds during the summer, and have more orders for grafts than I care to let go. The California Red is only excelled by the Burbank, which stands at the head. I have the earliest, location on the Pacific Coast."

G. W. THISSELL, Sr., Yolo County, Cal.

"I congratulate you upon your success in so new and rich a field; may you have many years in which to broaden the world's knowledge." (Prof.) Jas. W. Ford, Minn.

"I have just received a copy of your NEW CREATIONS and hasten to thank you for it. It surely is a novel catalogue in every respect. I have been greatly interested and benefited in looking it over, and only wish I might see some of your interesting hybrids."

H. J. Webber, Asst. Veg. Pathologist, U. S. Dept. of Agriculture, Subtropical Laboratory, Fla.



New Plum. "Doris."

A seedling of Satsuma which grows as readily from *cuttings* as a Quince or Currant. The tree is exceedingly vigorous and often bears fruit the second year from cuttings, and afterwards the branches are ropes of fruit which is quite soft, juicy, sweet and of good quality; for eating fresh, perhaps it would average up well with most good plums.

It is a Plum for everybody, as it can be raised so easily, and it makes a first-class stock for budding other varieties on, far excelling the Mariana here. It should be hardy as far north as Ohio at least.

Stock: Many fine large trees. Stark Bros. have a half interest in it. Price of the other half, \$300.

"I am now satisfied that the Burbank and your Japan Walnuts will winter all right here without protection, as the past winter has been the most severe on tender fruit in twenty years, so Prof. Budd writes. My little Burbank grafts are loaded with fruit, and I think will ripen up, so if you have any varieties of Plums you think as hardy as Burbank, I should like to try them."

DR. A. B. DENNIS, Iowa.

"I am an admirer of your 'Burbank' Plum. I have about three hundred and fifty growing now, and expect to set out more the coming year. I raised, or rather, the trees produced, samples measuring six and one-fourth inches in circumference this season."

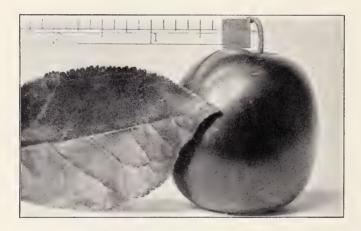
ANDREW RYDER, Placer Co., California.

"The Burbank Plums bore heavily this year; they are simply superb; those who have eaten the fruit pronounce it magnificent."

H. E. GOODRICH, San Diego Co., Cal.

"The Burbank Plum you sent me for testing some time ago has proved such a success here that it seems to me there must be more where that came from. What will you have for next year that I can secure for testing here? I am anxious to introduce more of your good things here."

JAMES TROOP, Purdue University,
Agricultural Experiment Station of Indiana.



CHICKASAW DOMESTICA HYBRID. (Large and handsome, but not productive.)

"The Burbank is the most celebrated of all our importations. After a thorough trial we pronounce it to be the best and most valuable fruit introduced to these colonies and the most profitable that can be grown. The tree, though an enormous bearer, is at the same time a most vigorous grower. The fruit is of the largest size, best flavor, most handsome appearance, and very much superior to all other Japanese Plums. We have fruited the Burbank for three years; one three-year-old tree growing in our nursery this autumn produced over twenty pounds of large, handsome fruit, some specimens measuring seven (7) inches in circumference. Visitors to our nursery were amazed at the marvelous sight and agreeably surprised at the splendid flavor of the Burbank. Those who came prejudiced against Japan Plums altered their opinion at once."

D. HAY & Son, Auckland, N. Z.

"The most important conclusion at which I have arrived is that the mere act of crossing does no good. The good depends on the individuals which are crossed, differing slightly in constitution, owing to their progenitors having been subjected to slightly differing conditions, or to what we call, in our ignorance, spontaneous variation."

"Every man has his own vocation. There is one direction in which all space is open to him. He has faculties silently inviting him thither to endless exertion. He is like a ship in a river: He runs against obstructions on every side but one; on that side all obstruction is taken away, and he sweeps serenely over a deepening channel into an infinite sea."

—Emerson.

# Berries.

### **Gross-bred White Blackberry.**

"Iceberg."

WING to the somewhat unsatisfactory qualities of the White Blackberries so far known, the impression may have been entertained by some, that no White Blackberry could be as productive and hardy, with berries as early, abundant, large, handsome and delicious, as the best black ones.

The well-known Lawton is, when ripened, unsurpassed, and very generally known as the most productive market berry. Owing to its fixity of race, it will reproduce itself from seed almost exactly, and its seedlings will not be influenced, when raised from seed pollenated by other varieties, but readily imparts its good qualities when employed as the staminate parent. One of the great grandparents of "Iceberg" was Lawton. The first generation of seedlings, when crossed with Crystal White, was all black; the second also, though varying much in other respects; but the third produced this wonderful plant, bearing the snowiest white berries ever seen.

Very little attention was paid to the long rows of cross-bred descendants, until one day this berry was discovered, among its black relatives, with the canes bending in various directions with its load of delicious, snowy berries, which are not only white, but so transparent that the seeds, which are unus-

ually small, may be seen in the berries when ripe.

Clusters, larger than those of Lawton; berries, as near as could be judged, were at least as large, earlier, sweeter, and more tender and melting throughout, though as firm as Lawton is when ripe.

Stock: One large bush, now divided into three, and three hundred strong

plants from root cuttings. Price, \$2,500.

"I can still see in my mind's eye those magnificent hybrid berries in your experiment grounds, but I feel that I cannot fully appreciate your work, for it would take weeks, rather than hours, to give the experiments the careful inspection which they deserve."

(Prof.) ÉMORY E. SMITH, Leland Stanford Jr. University, Cal.

- "We are very glad, indeed, to receive your new catalogue, and note with interest the results already attained in your great work."

  STARK BROS., Louisiana, Mo.
- "Santa Rosa is being advertised to the world in many ways, in none more than its fruits and flowers. Its godmother, the beautiful Limenian saint, Santa Rosa, it seems, has not forgotten her nursling. We allude to the astonishing developments in plant and fruit hybridizing by our fellow-townsman, Luther Burbank, who has the largest horticultural experiment grounds in the world. He sells the best outcome of his work, all the plants of a new variety, for a high sum, and after a while we will be buying some of his productions as approved staples, and planting them around the nursery in which they had their origin."—Santa Rosa Democrat.
- "Luther Burbank is at present engaged in the production of new varieties of fruits and flowers by combining native forces, guided by long and carefully conducted study and observation in biology. The results of his labors must be of great benefit to the nurserymen of this country."—Correspondent Florists' Exchange.
- "We received your splendid catalogue, and congratulate you upon your wonderful creations." D. Hay & Co., Auckland, N. Z.



NEW WHITE BLACKBERRY "ICEBERG." (A shade over life size)

### Blackberry-Raspberry Hybrid.

"Humboldt." (V. C. 18,234 of 1893.)

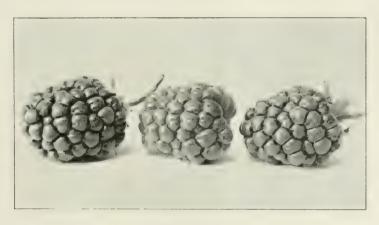
(For general description see New Creations for June, 1893.)

This berry, when not cooked, is too acid for most tastes, but is always praised beyond any words I would care to use in describing it, as someone might be disappointed. I will say this much—a more delicious berry for canning or drying has never been introduced; the most exquisite flavors of both Raspberries and Blackberries being combined and itensified in it.

The photograph is not quite life size. Stock on hand: One very large plant (vines fourteen to sixteen feet long), fifty two-year old plants and some

two hundred strong rooted tips. Price, \$850.

"Fred C. Smith, Horticultural Commissioner for the South Australian Government, accompanied by Wm. Brooke, also of Australia, and Mr. Cillie of South Africa, spent Tuesday in this city. One of the chief objects of their visit was to meet Luther Burbank, who is one of the best-known horticulturists. Mr. Smith says his works are extensively read in Australia, and are looked upon as eminent authority. He was as much pleased with the man as with the author."—Santa Rosa Democrat.



"PARADOX."

### Blackberry-Raspberry Hybrid.

" Paradox." (For history and description see New Creations for June, 1893.)

The plant is very productive of most delicious crimson berries, especially valuable for home use as they are not as firm as most Blackberries, being more like average Raspberries in that respect. The flavor is exactly balanced between Raspberries and Blackberries, as are all other characteristics of the plant. The berries improve in size as the plant grows older. Price, \$800.

"I beg to thank you for the catalogue of New Creations and for the information as to the disposal of your two Quince varieties. I have written to each of the purchasers. I hope the other marvelous productions have fallen into good hands, and that we shall hear of them as soon as they are put on the market. One can but wonder as to the possibilities of many of your combinations."

A. WOODROFFE, Auckland, N. Z.



"Humboldt." (Slightly less than life size.)

"We have never received a catalogue so interesting as yours just received. Were we doing a large business we would certainly invest in some of your new fruits. The Burbank Plum is good enough for us. We are raising considerably more of it this year than of any other variety. There is a wonderful demand for it here."

RAMSEY & Co., Burnet Co., Texas.

"We are in receipt of your catalogue, for which accept our best thanks. On perusing it we were not only delighted but astonished."

C. S. McDonald & Son, Auckland, N. Z.

"The Gladioli received by me last spring fully supported your claims for them. Thanks for your catalogue. It is a revelation to me."

H. H. GROFF, Ontario, Canada,



RUBUS CAPENSIS. (See next page.)

### Rubus Capensis.

This peculiar berry-plant came to me by way of New Zealand from South Africa, and is probably the one that Stanley speaks so highly of as growing in places on the Dark Continent. The canes grow to a height of six to ten feet, bending over and rooting from tips like Black-cap Raspberries. The whole plant is covered with a short, rusty down, and few short scattered prickles; the fruit is fully as large or larger than Shaffer's Colossal Raspberry, of a purplish wine or mulberry color, and of excellent quality, though the berries do not separate from the receptacle as freely as they should; it is a very promising berry-plant. None for sale except the whole stock, consisting of some one hundred and fifty or more large two-year-old bushes. Price, \$300.

"From the introductory remarks in your catalogue New Creations just received, I must believe that it is sent to me purposely, and hence that courtesy requires an acknowledgment. I have read it and have examined the photographic reproductions with much care, and I can say that I am agreeably interested. Some of your statements come within my experience; others go far beyond. I, however, see nothing theoretically impossible in your claimed results. In experimenting with hybridizing, there is a whole vista of good things always in the prospect, and a life-study, almost, in the interesting results. I thank you for the catalogue."

(Dr.) E. I.Ewis Sturtevant, Mass.

"New Creations in Fruits and Flowers is the title of a remarkable and unique catalogue. For many years, Luther Burbank—a name familiar to potato growers—has been experimenting in the production of fruits and flowers from seeds, by selection hybridization and cross-pollenation. He has now the greatest horticultural grounds in the world. The fruits and flowers mentioned are the best of millions of seedlings; some of them are marvelous; they are not simply new varieties, but new creations; he has obliterated the lines between species and produced hybrids between different species—heretofore considered impossible. Mr. Burbank is an originator in horticulture, and a genius in his line, but he is not an introducer. Whatever he produces of special value is offered for sale to nurserymen, and will in due time reach the public through them. This catalogue is not for public distribution. He is a busy man, intensely in love with his work—a work which must not be interrupted."—Farm and Fireside.

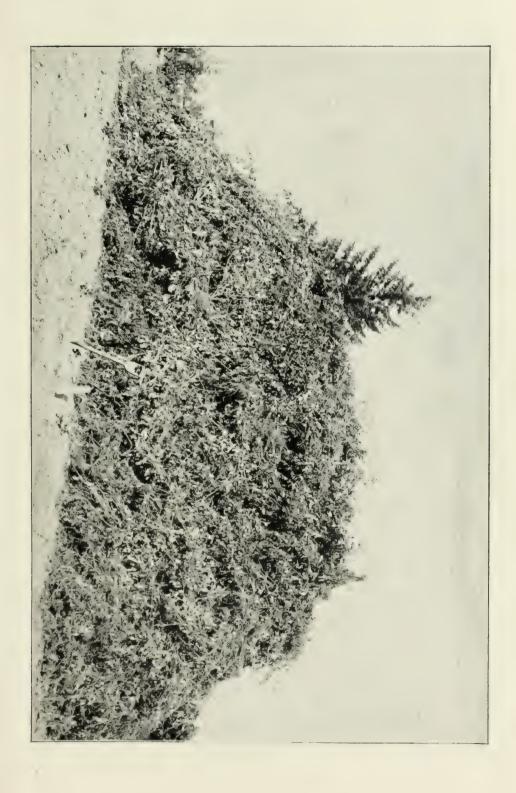
The photograph on the opposite page shows a sample pile of brush twelve feet wide, fourteen feet high, and twenty-two feet long containing 65,000 two and three-year-old hybrid seedling berry bushes (40,000 Blackberry X Raspberry hybrids, and 25,000 Shaffer X Gregg hybrids) all dug with their crop

of ripening berries.

This photograph is introduced to give a more correct idea of the work necessary to produce a *new race* of berries of superlative excellence. Of the 40,000 Blackberry-Raspberry hybrids of this kind, "Paradox" is the only one now in existence. From the other 25,000 hybrids, about two dozen bushes are left for further trial, but from these selected ones, wonderful new berries are appearing whose forces are so fixed in the right direction that they generally produce good and productive seedlings. This pile of brush cost in coin something like \$700, and is one of fourteen similar piles which were cremated on one of my places last summer.

"In this connection we wish to say, as we have already tried to express to you, that our high opinion of your work and consideration of your wishes in connection with the introduction of your new fruits, would lead us to suggest that you prepare just the descriptions you would like us to use in introducing them. Possibly there will be some alterations or additions to the descriptions you give in your latest catalogues. In any event, be sure our inclination is not to introduce with any tinge of the customary exaggeration given new fruits. Any points you can give us from time to time will be greatly appreciated."

STARK BROS., Louisiana, Mo.



"Luther Burbank of California has done more for this race (Gladiolus Gandavensis) than any other man living. He found that the petals of most of our varieties were too thin for the California climate, and would wilt too soon. By raising and saving seed of the best, and repeating this process over and over, he finally succeeded in producing a strain with thicker petals and dwarfer growth, with all the beautiful colors of this race. This is all he claims and he is not mistaken."

M. CRAWFORD, Ohio.

# Lilies.

EARCH this earth all over; climb every mountain; plunge into every canyon, valley and jungle; and, when all this is done, visit every park, garden, nursery and conservatory; go anywhere, everywhere, and as many varieties of charming *lilies* cannot be found as I have produced. All the earth is not adorned with so many new ones as are growing at my establishment.

My lilies are growing on two places—one eight, the other ten miles (by a dusty road) from any photographer; and during the very warm weather when they are in bloom, it is exceedingly difficult to bring them so far, in good con-

dition, for photographing.

One foggy morning last summer I succeeded in getting a few blooms over in presentable shape; they are shown on the next two pages. As the fragrance and colors could not be photographed, an attempt is made to convey a mental photograph of some of the points of those here represented. One is white; another, pale straw or creamy white, with thick, recurving, channeled petals, studded with numerous papillæ, with light yellow anthers; another is perfectly green throughout, in appearance very much resembling a Trillium; some are Tigridia like; others open their petals in such a curious manner that the flowers resemble Sprekelias in form; some are crimson and yellow, or darkest orange yellow with leopard spots, or plain. Many grow six to eight feet high, others, only six to eight inches; about one-fifth are fragrant, some slightly, others powerfully so; some bear only two or three flowers to each stalk, while others have twenty to fifty or more.

The broad or narrow, long or short leaves, are light or dark green, and sometimes beautifully striped with white; some varieties have branching stems.

The bulbs are almost as much of a study as the flowers. Some have flat, thin, open scales like a rose or clematis flower; others have close, thick, incurved scales, some many jointed, others entire and some crenated; a few with pink or red bulbs, but oftener yellow, orange, or white, some of which are nearly globular, others conical, pyriform or flat; some throw out numerous long moniliform underground runners; some varieties have a tendency to start early, others late.

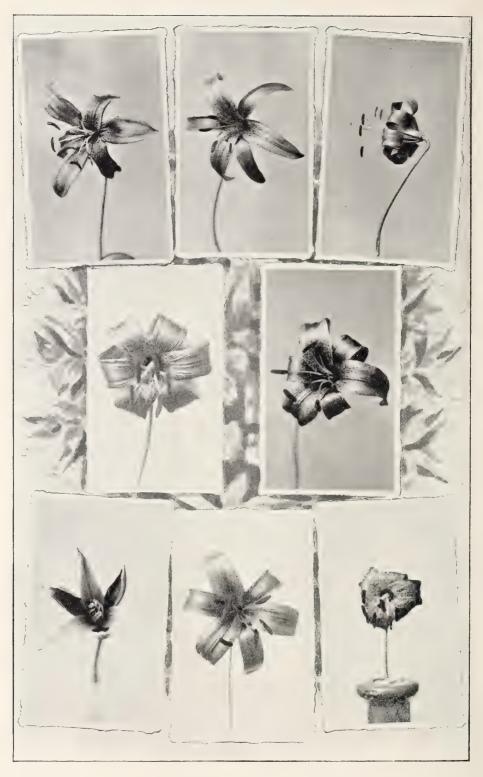
Though not having a very large stock of some, yet the number of varieties being so great, I will offer the control of some very handsome, hardy ones at from \$250 to \$10,000 each; and, having a multitude of other new things to absorb my attention, will offer all these lilies to any responsible party or parties for \$250,000, including all unbloomed hybrid seedlings and all the hybrid seed produced this season; this offer holds good only to November 1,

1894.

Lilies are generally quite hardy, as they came into existence through the necessity of protecting themselves against seasons of severe freezing or later, modified, perhaps, in a few cases by being subjected to long seasons of fierce heat and drought.



HYBRID LILIES. (Much reduced.)



Hyerid Lilies. (Much reduced.)

Nearly all my new lilies are crosses of parents selected for health, hardiness, easy management and rapid multiplication, as well as fragrance, beauty of coloring, grace and abundance of flowers; all will thrive and increase rapidly where almost any lily will grow. In these hybrids a broad foundation has been laid for endless variations which will reward lovers of flowers for ages to come.

"I am greatly delighted to know that you have so many new lilies coming on; they are to me the great attraction of California, and I would go further to see them than any of the other products of the State."

M. CRAWFORD, Ohio.

"I have received your pamphlet descriptive of some of your remarkable productions. I thank you for your courtesy, and have read the pamphlet with more interest than I ever felt in any other horticultural publication. I shall esteem it a great kindness if you will send me your following publications."

W. E. Endicott, Mass.

"Another reason why I am a champion of new fruits is that the originators must have encouragement. As a rule, men who originate new fruits are very poorly rewarded for long years of experimentation. If no one becomes interested in their productions after they have secured them, certainly originators would cease to exist. Have I not said enough to encourage the reader to believe that the introduction of new fruits is a blessing to mankind?"

—Charles A. Green, in Farmers' Home.

"The trouble is not so much that novelties are unworthy as it is that they are recommended promiscuously, and that their particular and distinctive merits are not discovered. I look with suspicion upon all those which are recommended indiscriminately, indefinitely, generally and for everything, and equally for all regions, because their descriptions cannot be truthful, and cannot be founded upon experience. I believe that the time is now at hand when a man can establish a more lucrative nursery or plant business by giving his novelties careful and discriminating tests, and by telling what they are not good for as clearly as he tells what they are good for, as he can by possessing himself of the desire to introduce a certain number of novelties each year and to paint them in such faultless colors that every thoughtful man knows that they are false."

—Prof. L. H. Bailey.

"No seedsman worthy the name would offer as a 'novelty' a plant or seed unless it had some points of value not already possessed by others. However much he might make from the sale of such at the start, a business built up therefrom is short-lived; beside that, the legitimate seedsman takes a great pride in his business reputation. He wants to have the seeds he sells prove just what they are represented to be."

—Florists Exchange.

"You who read these lines may consider that we are making progress slowly. But if you will remember that it has taken some twenty million years for the improvements of new fruits to reach the standard enjoyed when you were a boy, you will realize that the improvement has really been more rapid recently than in any other period of the history of the world." —Chas. A. Green.

"An occasional and slight change in the conditions of life is beneficial to all plants and animals; but the offspring from a cross between organisms which have been exposed to different conditions profit in an incomparably higher degree than do young or old beings from a mere change of their conditions."

—Darwin.



# Clematis.

This season I have the pleasure of offering a New Race of Clematis, produced by crossing the graceful coral-scarlet (Coccinea), and the bell-shaped

Crispa (Blue Bells).

The plants grow almost as vigorously as Hop Vines; the leaves are extremely gracile and handsome, and the profusion of flowers—from June till frost—exquisite in form and color, most of them being rather broadly bell-shaped, with an exquisitely beautiful frosty or snowflake appearance, with a blending of colors and shadings which cannot be found elsewhere in the whole Clematis family.



CLEMATIS. (Sample blooms of the new race.)

#### "Snowdrift."

A pure double snow-white; the vines during the spring and early summer are literally covered with flowers; it has not, so far, bloomed in the fall here, but would, no doubt, in a climate where summer rains occur, or if watered. Five large clumps. Price, \$300.

#### "Ostrich Plume."

A large white flower, variegated with light blue; the soft, feathery appearance of the flowers has not, as far as I can learn, been equaled, and who has ever seen one more perfectly double? One strong clump. Price, \$250.

#### "Waverly,"

A clear sky-blue seedling of medium size; the sepals are pleasingly undulating, while the flowers are symmetrical and handsome, both in bud and bloom. One strong clump. Price, \$200.

#### Double Clematis.

Jackmanni-Lanuginosa Types.



"SNOWDRIFT."





Besides those named in the preceding page, I have about a dozen new double seedlings of various forms and colors, and some single ones with largest flowers and unusual colors and habits of growth, some of them far excelling any now known in cultivation. Prices, from \$100 to \$300 each variety.

The cuts of the Double Clematis are about three-fourths life size.

"Allow me to thank you most heartily for a copy of your unique presentation, New Creations in Fruits and Flowers. It is a rare, rich feast, and I congratulate you upon your marvelous accomplishments."

(Prof.) T. V. Munson, Texas.

"I thank you for a copy received of your pamphlet titled, New Creations in Fruits and Flowers. It is exceedingly interesting and I prize it."

G. C. Brackett, Sec. American Pomological Society.

"I am well pleased with your strain of Gladiolus. In my opinion it is the most desirable that has been put on the market for many years. The Lemoine varieties are weak in several respects. But few flowers open at the same time, and the spikes are greatly inclined to be crooked. The Nancieanus are not vigorous growers, the petals are too thin, and too few open at a time. The Childs are good growers, very large, but nearly all red and too thin. The Gandavensis seed from Germany is not surpassed for good colors, but it has not the substance of the California strain received from you. Many a time have I thought of you and your Lilies. I would very much rather have seen them than the World's Fair, but it was not convenient to see either. Wishing you many years to spend in your good work, I am yours truly."

M. Crawford, Ohio.

"I received your catalogue some time since and have been reading and re-reading, and wondering at your *Creations* in which I am greatly interested. I did not suppose there was a man in the world who had given the time you have to the intricate work of improving and hybridizing fruits and flowers that you have done." Charles Mills, New York.

"Your approval of my long conviction that environment is likely to exert a modifying influence upon the character of the incipient plant, carries the greater weight with me from your wide experience in such matters. Trusting that you will reap ample returns from the fields in which you seem to be almost the sole laborer."

T. T. Lyon, Pres. of Michigan State Horticultural Society.

"There is located at Santa Rosa, California, the greatest horticultural experiment farm in America, if not in the world. On this farm of about fifty acres, Luther Burbank is devoting his attention to the production of new varieties of vegetables, fruits and flowers, with remarkably successful results, and it is by means of hybridization that the results are accomplished."

H. C. C. MILES, before Connecticut State Board of Agriculture.



## New Calla.

"Snowflake."



"SNOWFLAKE."

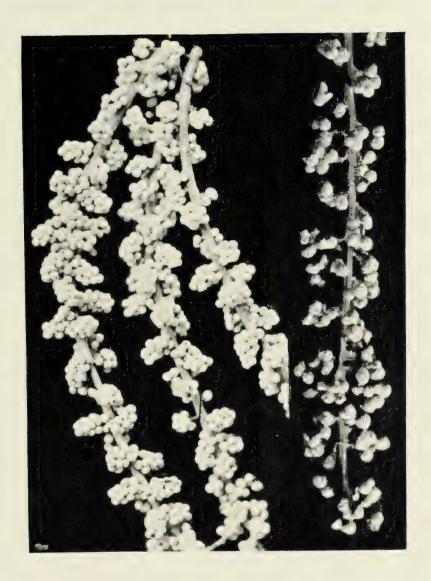
"ELLIOTT'S LITTLE GEM."



SNOWFLAKE, (Exact life size.)

On this page Elliot's Little Gem and the new "Snowflake" Calla are shown, both being grown under exactly the same conditions: the flowers, leaves and plants of this new Calla are not nearly half as large as the "true Little Gem," as may be verified in part by the accompanying photographs; the leaves of "Snowflake" differ in shape from all the other Callas, the lobes being more rounded as may be seen by the lower (life-size) photograph. Last season there existed but one plant and some bulblets; this season I have one hundred large healthy plants. Has the full control of such a floral gem ever been offered? Price, \$2,000, which will be most cheerfully refunded—all plants to be returned—if it proves to be half as large as the "true Little Gem."

See also page 38 in New Creations for 1893.



### Hybrid Wax Myrtles.

In the accompanying photograph the single branch at the right is the California Wax Myrtle (Myrica Californica), which is an upright, compact, growing tree,—the trunk often attaining a diameter of one to two feet,—with fragrant, dark, evergreen leaves.

The three branches shown at the left are of an improved variety of the

Eastern species (Myrica cerifera).

The wax produced by the Eastern species is of a pale green color; that of the Western species is purplish.

From the thousands of young hybrids which I have growing, a variety of value may be confidently expected.

#### New Calla.

#### "Fragrance."

The common Callas are destitute of any odor, except once in a while a seedling, which gives a faint odor of muriatic acid or a toadstool. Last summer, while critically examining a block of Little Gem Calla seedlings, I was surprised by a fragrance resembling that of Violets or Water Lilies; as I had long been seeking a fragrant Calla, the one producing the perfume was soon found.

This season "Fragrance" has proved itself constant in producing its pleasant perfume. The plants are a little more robust and of about the same general appearance as Little Gem, producing flowers as abundantly as any Calla known.

"I have examined with much pleasure your catalogue of new creations in Horticulture. Your results may be called marvelous, and they put our experiment stations to shame. I have endeavored to do some work in cross-fertilizing plants, but find the limited time at my command at the season of the year when this work must be done, a very serious trouble. While I am half tempted to be jealous of your success, I must extend to you my sincere congratulations for your wonderful results."

PROF. E. S. GOFF, Madison, Wis.

"Allow me to thank you for your catalogue of New Creations in Fruits and FLOWERS. It is the most interesting catalogue I have ever received. Every one of your PROF. C. C. GEORGESON, new plants is a monument in your honor."

Kansas State Agricultural College.

"I am your debtor for a copy of your NEW CREATIONS IN FRUITS AND FLOWERS just received. Much as I had heard of your operations in this new and comparatively unoccupied field, I was by no means prepared to expect such a breadth of operations, such breaking up of our old-time ideas as to the possibilities therein, and such wonderful results as are revealed in your catalogue. I have quite a number of your earlier "creations" on trial here, several of which I hope to fruit this coming season; and if at any time, or for any reason, you may wish to test of any of your productions in so remote a locality, I will be most happy to serve you in this way,"

T. T. Lyon,

Pres. of Michigan State Horticultural Society.

"Results are problematical, but there is certainly great room for improvement in our blackberries and raspberries. There is entirely too much seed for the amount of flesh. When we consider that our apples originated from a crab in no way superior to many of our own native wild crabs, and the excellence that has been developed by cultivation and selection, what may we not expect from our raspberries and blackberries, which are so much better naturally?"

BULLETIN No. 21, Illinois Agricultural Station.

"Professor Bailey was fully prepared to say he believed there was nothing random in Nature. Wherever a variety of plant was got it came from some law which to them might be unknown, and it should be their purpose to find out those laws that governed the selection and improvement of plants.

"Varieties improved from man's point of view must receive kind treatment and richer food than wild forms of the same plant. The cultivated plant, like the domesticated animal, yields in a measure its powers of self-defense to adapt itself to our service. Man must in return provide for its safety and nourishment. In the improvement of plants the action of man, much like influences which act on plants in the wild state, only brings about slow and gradual changes, often scarcely noticeable at first. But if the efforts toward the desired end be kept on steadily, the changes will soon become greater and greater, and the last stages of the improvement will become much more rapid than the first one." Vilmorin.

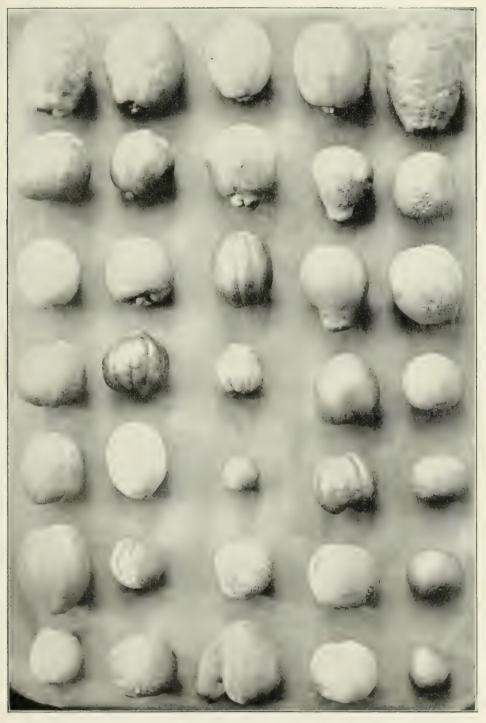


Plate showing how widely the seedlings of *Pyrus Japonica* vary in fruit. The various forms, sizes, colors, and the curious marking, dotting, spotting and shading of the fruit are remarkable. A species so variable and with so many possibilities in the way of acid, should produce some valuable varieties.



THE NEW ROSE "PEACHBLOW." (About half life size.)



"PEACHBLOW." (Nearly life size.)

### New Rose.

#### "Peachblow."

Described last season, but must be seen to be appreciated. The photographs give no intimation of its rich peculiar shadings. Fifty large bushes. Price, \$300.

"I part with you on the seed-testing question with considerable sorrow, both for the extremely pleasant relations that have always existed between us, and because I have been able to avail myself of your expert knowledge, which I do not anticipate finding when I look elsewhere. I have never found anyone besides you that I could rely on for testing seeds."

E. J. Bowen, San Francisco, Cal.



One of the four Nuts, the first ever produced by eleven large Californica X Regia hybrid trees. These nuts, as would be expected, are a complete combination of the two species in every respect; one was tested, the others planted, and variations are now in order.

The berry-plants have now been sifted down to about 50,000 kinds; it will require another season to select and definitely decide which are the best. Among them are many promising ones which are absolutely free from thorns. It will also be best to expect some new hybrid plums and other fruits, and among flowering plants some new types of Lilies, Tigridias, Amyrillis, Callas, Clematis, etc., etc., which will be entirely out of the usual line.

The novelties mentioned below, which were described in last catalogue,

remain unsold:

The two hybrid Walnuts. Purple leaf hybrid Plum, "K. P .- 193." Seedling Raspberry, "October Giant." Hybrid Blackberry, "Autumn King." Calla, Variegated "Little Gem." Calla "Giant." About fifty large strong plants. Calla, "Golden Variegated Albo Maculata." Myrtle, "Argentina." Poppy, "Silver Lining." Tomato, "Combination."

"Without the resolution in your hearts to do good work so long as your right hands have motion in them, and to do it whether the issue be that you die or live, no life worthy the name will ever be possible to you, while in once forming the resolution that your work is to be well done, life is really one, here and forever.'

"My Dear Burbank: Your New Creations in Fruits and Flowers for June, 1893, received. Although I knew you had been experimenting in hybridizing with more or less success for years, I was not quite prepared for the revelation unfolded by the book with its illustrations. I congratulate you on these triumphs. As an old friend I share with you the feeling of honest pride in your benefits conferred on Floriculture and Horticulture. I am glad I had the discrimination to place you on the Board of Trustees for the Botanic Gardens, and I am sure your co-trustees will share with me the feeling of satisfaction."

I. B. Armstrong, Cloverdale, California.

Col. Armstrong is the one who donated to the State of California about eight hundred acres of the finest giant Redwood forest hill and dale for a botanic garden, and has since bestowed upon it a permanent endowment for its preservation and improvement. The picturesque scenery and natural advantages of this great tract are varied, and will give the opportunity for all time to those who would see the primeval grandeur of the Redwood forests which are fast passing away.

"We cannot say enough in praise of the Burbank Plum; it is superior to all other varieties; the most fastidious cannot find fault with it. This is without doubt the best and most profitable Plum in cultivation."

D. HAY & SON, Auckland, New Zealand.

#### IMPROVEMENT OF CEREALS.

Grain crops may, like most other plants, be improved in various ways, and the improvement often is so marked as to distinguish the product as an entirely new variety. This is especially not infrequently the case when a cross of different varieties has taken place, either accidentally or by judicious selection of parent plants, the stigmas of the flowers of one chosen variety being fertilized with the pollen of another, taking precaution to prevent self-fertilization. This method of improving grains or other plants requires a great deal of skill, care and patience, and even when these conditions have been combined, the result will be uncertain. And even in the most favorable case several generations of cultivation, selection, and often repeated and various crossings are required before a new and improved variety can be established. Hence it will be understood that this method of improvement is rather out of the way of the general farmer, and must be left to the experts, who will be more likely to fail than to succeed. No wonder that very high prices are paid for new varieties of seeds and grains.—J. Pedersen-Bjergaard, Denmark, in American Agriculturist.

"The good will survive; the worthless will go under. Business tricks may help for a time, but honesty will prevail."

—Fred Dorner.



SAN FRANCISCO

"No limit can be fixed as to the improvements which may be expected from care, thought and selection. The gains of the last dozen years may surely be taken as the fore-runners of better things. It is clear that no very important additions to our cultivated plants are to be expected now from the discovery of new species, but an unlimited field open before the raiser of new and improved forms in all our garden flowers, and in fruit and requisible."

HEARI L. DE VILMORIN. and vegetables."

BLACKBERRY LEAVES: showing the strange variations sometimes produced after two or three genera-tions by crossing different species; some of the characterraics of either parent being intensified in some of the plants, even when the seed producing them comes from one individual plant, and possibly from the same berry.

